

AMENDMENTS TO THE ABSTRACT

Please replace the abstract in the application as filed with a replacement abstract having the following amendment. Pursuant to 37 C.F.R. § 1.72 a new abstract is submitted herewith.

-- Devices A device is provided for enhancing the sensitivity of a microsensor (or any other micro device) by providing on-line preconcentration. A microconcentrator is Microconcentrators provided on a silicon substrate that can be integrated with a sensor or a micromachined GC to enhance the signal to noise ratio. In one embodiment the microconcentrator comprises can include a miniaturized sorbent trap fabricated on a microchip. In a preferred embodiment the The microconcentrator is can be made on a silicon substrate so that a sensor can be integrated on the same chip. The microconcentrator is composed of at least one microchannel etched in silicon. The channel is lined with a microheater for in-situ heating. In a most preferred embodiment preconcentration is done Preconcentration may be achieved on a thin-film polymeric layer deposited above the heater in the microchannel channel. Rapid heating by the channel heater generates a “desorption pulse” to be injected into a detector; or, a sensor. --